

APGL70

Piezoelectric Micro Air Pump Datasheet

The APGL70 pump features high flow as well as high pressure. Its compact design makes it very suitable for wearable or portable application. Its light weight and silent operation provide a more convenient and favorable experience for the end-product applications, like AR/VR devices, breast pumps, or other medical related products. It is also very applicable to replace the noisy solenoid pump in the aquarium application.

Specification

Dimensions LxWxT (mm) (refer to the drawing also)	30.5 × 31.5 × 5.2 Max. (ports and wires excluded) Ports length: 6.0 Max. Ports diameter: 3.85 Max.
Maximum Mass (g)	10.0 Max.
OQC Criteria ±28V (56Vpp)* at 25 °C	1. Suction pressure, $P_s \leq -170$ mmHg 2. Pumping Pressure, $P_p \geq 180$ mmHg 3. Flow rate, $Q \geq 1000$ ml/min 4. Power, $W \leq 2W$ 5. Noise, $N \leq 45$ dBA

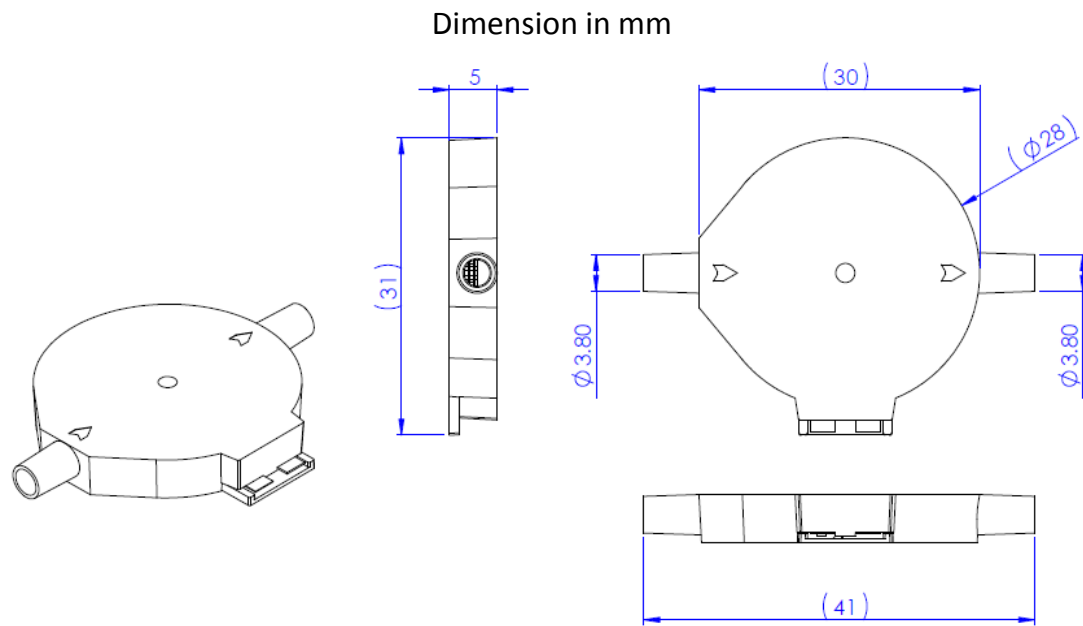
Rating

Operating Frequency	18.5 to 22.0 kHz *
Maximum Driving Voltage	±28 V (56 Vpp)
Storage Temperature	- 20 to 70 °C
Operating Temperature	0 to 50 °C
Storage or Operating Humidity	No liquid condensation

* Driving at the resonant frequency is suggested by a frequency tracking circuit.

Specifications are subject to change without notice.

Drawing



Typical Performance

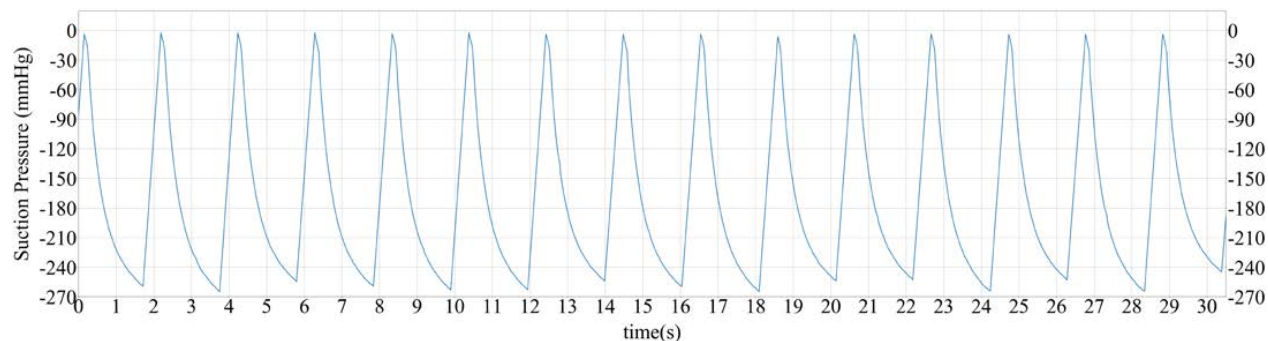
	±24V	±26V	±28V
Suction Pressure , Ps (mmHg)	-160	-165	-170
Pumping Pressure , Pp (mmHg)	170	175	180
Flow Rate , Q (ml/min)	800	900	1000



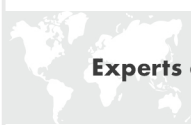
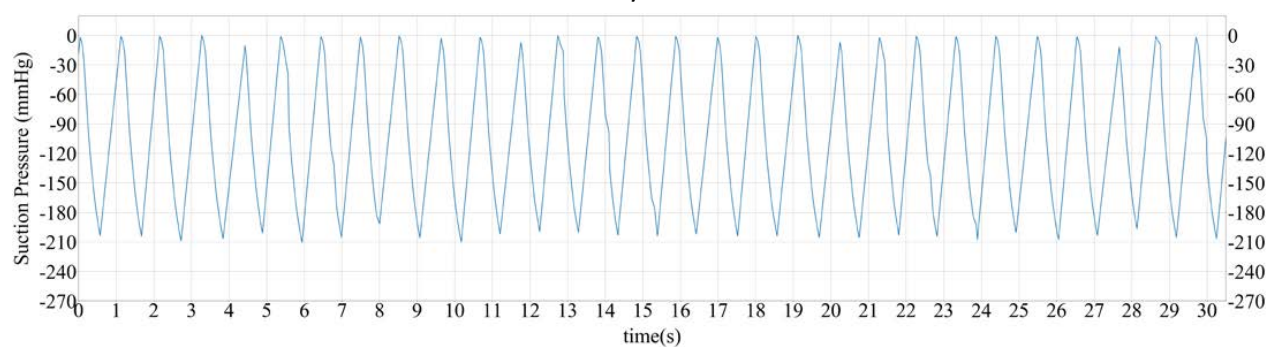
Breast Pump Application

Two APGL70 pumps in series by 15ml volume loading

1.5s On/0.5s Off



0.5s On/0.5s Off



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